

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A surgical retractor comprising:

a frame member;

first and second retractor blades coupled to the frame member, the retractor blades having retraction surfaces configured to engage an incision in a patient's body, wherein at least one of the first and second retractor blades is movable with respect to the frame member along a first lateral axis to position the retractor blades toward or away from each other;

a foot coupled to one of the frame member and the first and second blades, the foot being located outside of a space defined between said first and second retractor blades, the foot having a support surface configured to engage an external surface of a patient's body, outside of the incision, wherein the foot is adjustable in a vertical direction relative to the frame member and transverse to a direction in which the blades extend;

a locking mechanism for locking the foot and the frame member in a selected relative position along an axis which is transverse to the first axis; and

an actuator for moving said at least one retractor blade with respect to the other retractor blade along the first axis.

2. (Previously Presented) The retractor of claim 1, wherein the frame member comprises an elongated bar and the first and second retractor blades are respectively coupled to first and second arms coupled to the bar, one of said arms being movable with respect to the bar along the first axis, the foot being movable in the vertical direction.

3. (Previously Presented) The retractor of claim 1, wherein the second blade is rotatable about a second axis which is transverse to the first lateral axis, the foot being coupled to the second blade so that the foot and the second blade rotate together about the second axis.

4. (Original) A method of retracting a portion of a patient's body to carry out a surgical procedure, the method comprising the steps of:

positioning first and second retractor blades against opposite sides of an incision formed in a patient's body, the first and second retractor blades being coupled to a frame member so as to be

relatively movable toward or away from each other along a first axis;

coupling at least one foot to the frame member so as to be adjustable with respect to the frame member in a linear direction along an axis which is transverse to the first axis, the foot having a support surface configured to rest against a surface of the patient's body adjacent the incision;

adjusting the relative position of the foot with respect to the frame member along said linear direction and fixing the foot in a position at which the support surface of the foot rests against the surface of the patient's body adjacent the incision; and

imparting relative movement to the first and second blades to simultaneously move the blades apart along the first axis and lift one side of the incision with respect to the other side of the incision.

5. (Currently Amended) A rib retractor for spreading apart first and second ribs to create an opening in the patient's chest, comprising:

a frame;

a first blade coupled to the frame;

a second blade coupled to the frame, the second blade being movable toward and away from the first blade, the second blade having a rotatable connector which permits rotation of the second blade relative to the frame;

an actuator for moving at least one of the first and second blades toward the other of the first and second blades;

a foot coupled to at least one of the frame and the first and second blades, the foot having a support surface configured to engage ~~the~~ an external surface of the patient's chest, outside of the opening, when lifting the second rib with the second blade; and

a locking mechanism which selectively permits and prevents rotation of the rotatable connector, the locking mechanism being movable between a locked position, in which rotation of the rotatable connector is prevented, and an unlocked position, in which rotation of the rotatable connector is permitted, the locking mechanism being in the locked position for spreading the first and second ribs apart without lifting the second rib, the locking mechanism being in the unlocked position to permit rotation of the rotatable connector for spreading the first and second ribs apart and lifting the second rib.

6. (Original) The rib retractor of claim 5, wherein:

the foot is linearly movable relative to the frame; and

the rib retractor also comprises a locking mechanism selectively permitting and preventing linear movement of the foot relative to the frame.

7. (Original) The rib retractor of claim 5, wherein:

the frame has a first arm and a second arm, the first blade being attached to the first arm and the second blade being attached to the second arm.

8. (Original) The rib retractor of claim 7, wherein:

the frame includes an elongate bar, the first and second arms being mounted to the bar, the second arm being movable along the elongate bar toward and away from the first arm along a first axis.

9. (Currently amended) The rib retractor of claim 5, wherein:

the locking mechanism may be moved ~~move~~^{4d} from the locked position to the unlocked position without removing the first and second blades from the opening in the patient's chest.

10. (Currently Amended) A surgical retractor comprising:

a spreader member;

first and second retractor blades coupled to the spreader member, wherein at least one of the first and second retractor blades is movable with respect to the spreader member along a first axis to position the retractor blades toward or away from each other;

a shoe coupled to one of the spreader member and the first and second blades, the shoe extending outside of a space bordered by the spreader member and the first and second blades and having a support surface configured to engage a surface of a patient's body, wherein the shoe is adjustable toward or away from the patient's body, relative to the spreader member, and transverse to said first axis;

a locking member for locking the shoe and the spreader member in a selected relative position;
and

a drive member for moving said at least one retractor blade with respect to the other retractor blade along the first axis.

11. (Original) The retractor of claim 10, wherein the spreader member comprises an elongated member and the first and second retractor blades are respectively coupled to first and second arms coupled to the elongated member, one of said arms being movable with respect to the elongated member

along the first axis, the shoe being movable relative to the elongated member in a manner which is transverse to the first axis.

12. (Original) The retractor of claim 10, wherein the second blade is rotatable about a second axis which is transverse to the first axis, the shoe being coupled to the second blade so that the shoe and the second blade rotate together about the second axis.

13. (Original) A method of retracting a portion of a patient's body to carry out a surgical procedure, the method comprising steps of:

positioning first and second retractor blades against opposite sides of an incision formed in a patient's body, the first and second retractor blades being coupled to a spreader member so as to be relatively movable toward or away from each other along a first axis;

coupling at least one shoe to the spreader member so as to be adjustable with respect to the spreader member in a manner which is transverse to the first axis, the shoe having a support surface configured to rest against a surface of the patient's body adjacent the incision;

adjusting the relative position of the shoe with respect to the spreader member and fixing the shoe in a position at which the support surface of the shoe rests against the surface of the patient's body adjacent the incision; and

imparting relative movement to the first and second blades to simultaneously move the blades apart along the first axis and lift one side of the incision with respect to the other side of the incision.

14. (Currently Amended) A rib retractor for spreading apart first and second ribs to create an opening in a patient's chest, comprising:

a spreader;

a first blade coupled to the spreader;

a second blade coupled to the spreader, the second blade ~~being being~~ movable toward and away from said first blade, the second blade having a rotatable connector which permits rotation of the second blade relative to the spreader;

a drive member for moving at least one of the first and second blades toward the other of the first and second blades;

a shoe coupled to at least one of the spreader and the first and second blades, the shoe extending away from said spreader, said blades and the opening in the patient's chest and having a support surface

configured to engage the surface of the patient's chest when lifting the second rib with the second blade; and

a locking member which selectively permits and prevents rotation of the rotatable connector, the locking member being movable between first and second positions, the locking member being in the first position for spreading the first and second ribs apart without lifting the second rib, the locking member being in the second position for spreading the first and second ribs apart and lifting the second rib.

15. (Original) The rib retractor of claim 14, wherein:

the shoe is movable relative to the spreader; and

the rib retractor also comprises a second locking member selectively permitting and preventing linear movement of the shoe relative to the spreader.

16. (Original) The rib retractor of claim 14, wherein:

the shoe is coupled to the second blade so that the shoe and the second blade are rotatable together.

17. (Original) The rib retractor of claim 14, wherein:

the spreader has a first arm and a second arm, the first blade being attached to the first arm and the second blade being attached to the second arm.

18. (Original) The rib retractor of claim 17, wherein:

the spreader includes an elongate member, the first and second arms being mounted to the elongate member, the second arm being movable along the elongate member toward and away from the first arm along a first axis.

19. (Original) The rib retractor of claim 14, wherein:

the locking member may be moved from a locked position to an unlocked position without removing the first and second blades from the opening in the patient's chest.

20. (Currently Amended) A surgical retractor comprising:

a frame member;

first and second retractor blades coupled to the frame member, the retractor blades having retraction surfaces configured to engage an incision in a patient's body, wherein at least one of the first and second retractor blades is movable with respect to the frame member along a first axis to position the retractor blades toward or away from each other;

a foot coupled to one of the frame member and the first and second blades, the foot having a support surface configured to engage a surface of the a patient's body, wherein the foot is adjustable in a linear direction relative to the frame member and transverse to said first axis;

a locking mechanism for locking the foot and the frame member in a selected relative position along an axis which is transverse to the first axis; and

an actuator for moving said at least one retractor blade with respect to the other retractor blade along the first axis;

wherein the second blade is rotatable about a second axis which is transverse to the first axis, the foot being coupled to the second blade so that the foot and the second blade rotate together, relative to the frame member, about the second axis.

21. (Previously Presented) The retractor of claim 20, wherein the frame member comprises an elongated bar and the first and second retractor blades are respectively coupled to first and second arms coupled to the bar, one of said arms being movable with respect to the bar along the first axis, the foot being movable in the linear direction along said axis which is transverse to the first axis.

22. (Currently Amended) A surgical retractor comprising:

a spreader member;

first and second retractor blades coupled to the spreader member, wherein at least one of the first and second retractor blades is movable with respect to the spreader member along a first axis to position the retractor blades toward or away from each other;

a shoe coupled to one of the ~~spreader member and the~~ first and second blades, the shoe having a support surface configured to engage a surface of a patient's body, wherein the shoe is adjustable relative to the spreader member in a manner which is transverse to said first axis;

a locking member for locking the shoe and the spreader member in a selected relative position; and

a drive member for moving said at least one retractor blade with respect to the other retractor blade along the first axis;

wherein the second blade is rotatable about a second axis which is transverse to the first axis, the shoe being coupled to the second blade so that the shoe and the second blade rotate together about the second axis.

23. (Previously Presented) The retractor of claim 22, wherein the spreader member comprises an elongated member and the first and second retractor blades are respectively coupled to first and second arms coupled to the elongated member, one of said arms being movable with respect to the elongated member along the first axis, the shoe being movable relative to the elongated member in a manner which is transverse to the first axis.

24. (New) The retractor of claim 2, wherein the foot is located outside of a space defined between said first and second arms.

25. (New) The retractor of claim 1, wherein the foot is configured to engage an external surface of the patient's chest.